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Stagnant Manufacturing in India: The Role of TFP and Trade

Executive Summary

Manufacturing has historically been central to economic development, yet many developing countries today face stagnation or even decline, particularly in terms of the labor share of this sector. India exemplifies this challenge: while its services sector has expanded rapidly, manufacturing has remained stagnant at about 10-12% of the labor share for the last 4-5 decades.

This study develops and calibrates a three-country, three-sector open economy general equilibrium model—including income effects, asymmetric productivity (TFP) growth, and trade—to investigate India's structural transformation. Through counterfactual experiments, the analysis shows that India's sluggish manufacturing performance in terms of its employment share in the economy is primarily the result of weak productivity growth in the sector. Trade has some compensatory impact, but faster TFP growth in services has skewed the transformation toward services, bypassing the traditional manufacturing-led pathway. Strikingly, even if India's TFP growth had matched China's, the model suggests only limited structural divergence between the two economies, underscoring the depth of the challenge. However, it is important to acknowledge here that the model does fit the Indian employment share data very well, but falls short of predicting the manufacturing-led transformation path even for the Chinese economy, even though similar models have been used in the literature for explaining the structural transformation in countries like South Korea.

The findings highlight three core insights. First, TFP growth is the most critical driver of structural transformation and manufacturing competitiveness. Second, while trade can support growth, its benefits are constrained in the absence of robust productivity improvements. Third, India's shift away from agriculture directly into services risks missing the developmental benefits of manufacturing, including large-scale employment absorption and productivity convergence. Drawing lessons from China and South Korea, the paper argues that India must complement productivity-enhancing reforms with export-led industrial policies, including deeper trade partnerships and a stronger focus on producing export-oriented goods.

There are certain limitations of the study. The results are the output of the model, and therefore, the model plays a very important role in driving the conclusion. However, there are some missing links here — such as its static framework, which does not capture the dynamic evolution of the productivity in the model. The model also omits capital accumulation, which is a very important aspect of manufacturing growth. These caveats point to the need for future research using dynamic models that capture investment, technology adoption, and firm-level heterogeneity.